

NetIQ Privileged User Manager

Performance and Sizing Guidelines

March 2014



Legal Notice

THIS DOCUMENT AND THE SOFTWARE DESCRIBED IN THIS DOCUMENT ARE FURNISHED UNDER AND ARE SUBJECT TO THE TERMS OF A LICENSE AGREEMENT OR A NON-DISCLOSURE AGREEMENT. EXCEPT AS EXPRESSLY SET FORTH IN SUCH LICENSE AGREEMENT OR NON-DISCLOSURE AGREEMENT, NETIQ CORPORATION PROVIDES THIS DOCUMENT AND THE SOFTWARE DESCRIBED IN THIS DOCUMENT "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME STATES DO NOT ALLOW DISCLAIMERS OF EXPRESS OR IMPLIED WARRANTIES IN CERTAIN TRANSACTIONS; THEREFORE, THIS STATEMENT MAY NOT APPLY TO YOU.

For purposes of clarity, any module, adapter or other similar material ("Module") is licensed under the terms and conditions of the End User License Agreement for the applicable version of the NetIQ product or software to which it relates or interoperates with, and by accessing, copying or using a Module you agree to be bound by such terms. If you do not agree to the terms of the End User License Agreement you are not authorized to use, access or copy a Module and you must destroy all copies of the Module and contact NetIQ for further instructions.

This document and the software described in this document may not be lent, sold, or given away without the prior written permission of NetIQ Corporation, except as otherwise permitted by law. Except as expressly set forth in such license agreement or non-disclosure agreement, no part of this document or the software described in this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, or otherwise, without the prior written consent of NetIQ Corporation. Some companies, names, and data in this document are used for illustration purposes and may not represent real companies, individuals, or data.

This document could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein. These changes may be incorporated in new editions of this document. NetIQ Corporation may make improvements in or changes to the software described in this document at any time.

U.S. Government Restricted Rights: If the software and documentation are being acquired by or on behalf of the U.S. Government or by a U.S. Government prime contractor or subcontractor (at any tier), in accordance with 48 C.F.R. 227.7202-4 (for Department of Defense (DOD) acquisitions) and 48 C.F.R. 2.101 and 12.212 (for non-DOD acquisitions), the government's rights in the software and documentation, including its rights to use, modify, reproduce, release, perform, display or disclose the software or documentation, will be subject in all respects to the commercial license rights and restrictions provided in the license agreement.

© 2014 NetIQ Corporation and its affiliates. All Rights Reserved.

For information about NetIQ trademarks, see <https://www.netiq.com/company/legal/>.

Contents

| | |
|---|---|
| Contents..... | 3 |
| 1 Introduction | 4 |
| 2 Test Scope | 4 |
| 3 Test Setup..... | 4 |
| 3.1. PUM Windows Installer..... | 4 |
| 3.2. PUM Linux Installer | 6 |
| 4 Sizing Recommendation for Session Capture with Video Recording..... | 8 |

1 Introduction

This document details the performance and sizing recommendations for NetIQ Privileged User Manager so that you can deploy the correct configuration in your environment. The test results are simulated and every environment is different. But, the data should help in determining the design of your system. This document specifically refers to the 2.4 release of NetIQ Privileged User Manager.

2 Test Scope

Following are the test scenarios/data considered for the tests:

- Number of RDP Relay sessions, Maximum 50 concurrent session on one PUM Manager
- Memory Utilization when all the sessions are active on PUM manager
- CPU Utilization when all the sessions are active on PUM manager
- Response time for different admin/non-admin applications

3 Test Setup

3.1. PUM Windows Installer

PUM Manager is installed on Windows 2008 R2, with remote desktop services role installed. PUM Manager contains the RDP relay manager as well as Audit manager.

Hardware Configuration of the PUM Manager Computer

| | |
|-----------|----------|
| RAM Size | 8 GB |
| CPU | 2.50 GHz |
| Hard Disk | 40 GB |

PUM Agents are installed on different windows operating systems including windows 2008 and windows 2008 r2 machine, all the agents machine also have terminal server and remote services role installed.

Hardware Configuration of the PUM Agents Computer

Windows 2008 Machine

| | |
|-----------|----------|
| RAM Size | 8 GB |
| CPU | 2.50 GHz |
| Hard Disk | 40 GB |

RAM Size - 8 GB

CPU - 2.50 GHz

Hard Disk - 20 GB

Windows 2008 R2 Machine

| | |
|-----------|----------|
| RAM Size | 8 GB |
| CPU | 2.50 GHz |
| Hard Disk | 40 GB |

RAM Size - 8 GB

CPU - 2.66 GHz

Hard Disk - 20 GB

Agent 1

| Scenario | # session | Time took to login | Time delay to start any admin application |
|--|-----------|--------------------|---|
| No of Windows RDP session to Windows 2008 Server | 2 | 2 Min | 5 Seconds |
| No of PUM RDP Relay session to Windows 2008 Server | 2 | 2 Min | 20 Seconds |
| No of PUM RDP Relay session to Windows 2008 Server | 5 | 2 Min | 25 Seconds |
| No of PUM RDP Relay session to Windows 2008 Server | 10 | 2 Min | 20 Seconds |

Agent 2

| Scenario | # session | Time Took to login | Time delay to start any admin application |
|--|-----------|--------------------|---|
| No of Windows RDP session to Windows 2008 R2 Server | 10 | 1 Min | 5 Seconds |
| No of Windows RDP session to Windows 2008 R2 Server | 25 | 4 Min | 1-2 Minutes |
| No of PUM RDP Relay session to Windows 2008 R2 Server | 2 | 1 Min | 5 Seconds |
| No of PUM RDP Relay session to Windows 2008 R2 Server | 10 | 1 Min | 5 Seconds |
| No of PUM RDP Relay session to Windows 2008 R2 Server | 15 | 2 Min | 20 Seconds |
| No of PUM RDP Relay session to Windows 2008 R2 Server | 20 | 2 Min | 40 Seconds |
| No of PUM RDP Relay session to Windows 2008 R2 Server | 25 | 4 Min | 1-2 Minutes |
| No of PUM RDP Relay session to PUM Agent on Windows 2008 R2 Server | 30 | 10 Min | 5-10 Minutes |

3.2. PUM Linux Installer

Hardware Details of the PUM Manager Computer

RAM Size - 4 GB

CPU - 2.50 GHz

Hard Disk - 15 GB

Hardware Details of the PUM Agents Computer

(Win2k3 Agent are having 2 GB RAM)

RAM Size - 2 GB and 4 GB

CPU - 2.50 GHz

Hard Disk - 15 GB

PUM Manager contains the RDP relay manager as well as Audit manager. 25 Parallel RDP Relay connections to 10 Agents work properly.

| SNO | Scenario | #Session | Time Took to login | Time delay to start any admin application |
|-----|----------------------------------|----------|--------------------|---|
| 1 | No of Parallel RDP Relay Session | 10 | 30 Seconds | 30 Seconds |
| 2 | No of Parallel RDP Relay Session | 12 | 40 Seconds | 30 Seconds |
| 3 | No of Parallel RDP Relay Session | 15 | Approx. 1 Min | 30 Seconds |
| 4 | No of Parallel RDP Relay Session | 20 | Approx. 1 Min | 30 Seconds |
| 5 | No of Parallel RDP Relay Session | 25 | Approx. 1 Min | 45 Seconds |
| 6 | No of Parallel RDP Relay Session | 30 | Approx. 1 Min | Approximately 1 Min |
| 7 | No of Parallel RDP Relay Session | 35 | 1 Min 30 seconds | Approximately 1 Min |

For Scenario 6

Here PUM manager CPU Utilization when all the connection are logging to Agent = 25 – 30 %

Once RDP Relay connection is connected, CPU utilization comes down to 10%

When all RDP relay connection are logoff CPU utilization comes down to 2-5%

Here PUM Manager Memory Utilization when all the connection are active = 15 -20%

Once RDP Relay connection is connected, Memory utilization depends on the user activity, on idle connection Memory Utilization remain same, and when user perform some activities it goes little higher to 20-25%.

For Scenario 7

Here PUM manager CPU Utilization when all the connection are logging to Agent = 35 – 50 %

Once RDP Relay connection is connected, CPU utilization comes down to 10%

When all RDP relay connection are logoff CPU utilization comes down to 2-5%

Here PUM Manager Memory Utilization when all the connection are active = 45 -60%

Once RDP Relay connection is connected, Memory utilization depends on the user activity, on idle connection Memory Utilization remain same, and when user perform some activities it goes little higher to 20-25%.

4 Sizing Recommendation for Session Capture with Video Recording

The following table describes scenarios for video capturing:

| Scenario | File Size |
|--------------------------|-----------------|
| If the session is idle | 800 KB - 1.3 MB |
| If the session is active | 1 MB - 4.5 MB |

Note: These are approximate values.